GEOGRAPHIC SCHOOL BULLETINS

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Dancers recall immigrant heritage in

WISCONSIN

also— Breadfruit and the *Bounty*
Buddhism
Chaotic Laos

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country by the failure of their fight against autocracy. Most brought skills for which Wisconsin had ready use.

The second wave rolled in between 1881 and 1884. These solid folk settled down to become excellent farmers, tanners, brewers, managers of factories. Concentrating especially around Milwaukee, their cultural activities soon gave it the reputation of the *Deutsche Athen* of the Midwest.

The list is as varied as the map of Europe: Swedes, Finns, Norwegians, Danes, even a group of Icelanders; Poles in profusion; Dutch, Belgians, Czechs, Slovaks, Italians, and more recently, Greeks, Lithuanians, Hungarians, and Yugoslavs.

On special festive days many a Wisconsin town reaches back into its Old World origins for its costumes, pageantry, and food.

THOMAS J. ABERCROMBIE, NATIONAL GEOGRAPHIC STAFF

NATIONAL GEOGRAPHIC PHOTOGRAPHER VOLKMAR WENTZEL

What did they find, these immigrants? That so many of them stayed indicates that they agreed with another of the early explorers, Pierre Esprit Radisson, who wrote that "ye world could not discover such inticing countrys to live in."

Green and decorated with myriad lakes, Wisconsin offered good soil plentifully watered. Cows like its pastures so much that they outnumber the people, pouring out some 14 percent of the United States milk supply. (Left, early morning milking on a farm near Waukesha.)

Much of this white flood is turned into cheese. In Plymouth, one store has amassed samples of every type of cheese produced in the state (above).

Peas, corn, oats, and beets add to the state's larder.

When the first settlers came in, Wisconsin was clad in forests. Radisson journeyed for days through woods "dark as in a cellar."

As the forests of the east melted under the white man's onslaught, covetous eyes turned toward this vast stand of pines. The woods

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WISCONSIN – Land of Peoples and Plenty

NATIONAL GEOGRAPHIC PHOTOGRAPHER VOLKMAR WENTZEL, LEFT AND COVER

IN WISCONSIN, the American melting pot has produced more of a stew than a soup.

The different nationalities that make up its 4 million population have tended to retain their identities more than in other states.

This has given a rich mixture of cultures, with each separate, yet helping flavor the others. The Milwaukee teenagers on the cover, for example, cavort in a folk dance from the Tatry Mountains of southern Poland. Their after-the-show snack might be German bratwurst such as are being cooked at left in the annual Bratwurst Day celebrated in Sheboygan.

The first white man to visit Wisconsin, Jean Nicolet, carefully donned a magnificent damask robe (in case he had reached China) and carried a brace of pistols (in case). Instead of mandarins, he was greeted by Winnebago Indians, who were more impressed with the guns than with the costume, and promptly invited him to dinner.

Ever since, Wisconsin has been hospitably taking in travelers.

Southerners pushed up the Mississippi to mine tin, giving the state its enduring nickname. Their diggings were compared to badger holes, and Wisconsin is still the Badger State.

After the Indian rebel Black Hawk had been defeated in 1832 (a war in which Abraham Lincoln and Jefferson Davis fought on the same side) Yankee farmers drove their prairie schooners in, cracking 27-foot bullwhips over their oxen.

But the chief source of Wisconsin's population was Europe. Alone among the western states it was settled, not by the predominantly Anglo-Saxon peoples from the east, but directly from overseas.

Cornish miners settled around Mineral Point; Scots moved into eastern and northern counties; Welshmen brought hymns and chapels; famine-haunted Irish poured into eastern and southern farmlands; tidy Swiss founded cheese factories around New Glarus and half a dozen other points.

And then came the Germans. The first big wave came in 1848: intellectuals, republicans, liberals driven from their

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nique, Milwaukee is the birthplace of the automated assembly line. The first true automatic assembly process on a large scale took place at the A. O. Smith Corporation, one of the biggest users of steel in the United States. It made the first pressed-steel automobile frame in 1903, and 16 years later the process became automatic. The 50-millionth auto frame rolled off this line in 1955.

Most of Wisconsin's heavyweights cluster along the eastern border, handy to Lake Michigan and, through the St. Lawrence Seaway, to the world. The largest crane on the Great Lakes, far left, lifts a 26-ton tractor onto a Dutch merchant ship.

Other factories are spotted throughout the state, turning out fountain pens, bathroom fixtures, and many other products within rifle shot of some of the pleasantest lakes and most game-filled woods in America.

These "inticing countrys" draw Wisconsinites outdoors in droves. The lakes offer fishing and sailing—year round. When winter forces the sailboats ashore, Badger sportsmen set sail on iceboats—and go even faster. The racing boats above skim over Lake Winnebago. Such craft move at speeds up to an estimated 150 miles an hour.

One landlubber wrote after his first sail: "Riding an iceboat in a stiff breeze is no more dangerous or uncomfortable than driving a truck 90 miles an hour down a steep wet hill, with the wheels loose, no brakes, and pieces of the windshield flying back into one's face."

NATIONAL GEOGRAPHIC PHOTOGRAPHER VOLKMAR WENTZEL

In winter fishermen may have to chop through 18 inches of ice to get at their prey—but they continue their sport. A popular spot is Lake Mendota, at the capital city, Madison. Out-of-state anglers fly in to share Wisconsin's good life, which in this phase consists of spending chilling hours sitting on orange crates on the ice and pulling up perch.

The fish supply is so big that there is no limit on how many fish a man can take from Mendota.

In summer, the sport continues from boats. Even with all this fishing, scientists say there has hardly been a dent made in the fish population—the living conditions for perch are ideal.

Another nickname for this water-sport state is "Land of 1,000 Lakes." It is a gross underestimate. Wisconsin has about 9,000 lakes, and has trouble sorting them out for proper counting. The names overlap a good deal; lumberjacks named many of them for their girls in town and they seemed to have known pretty much the same lot of girls. F. S.

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THOMAS J. ABERCROMBIE, NATIONAL GEOGRAPHIC STAFF

echoed the ring of axes, and the bellows of the bull-buckers, cat-skinners, and boomers who followed the giant footsteps of Paul Bunyan.

Wisconsin led all states in wood production.

Now the virgin pine is almost all gone—the only large patch is on the Menominee Indian Reservation near Shawano.

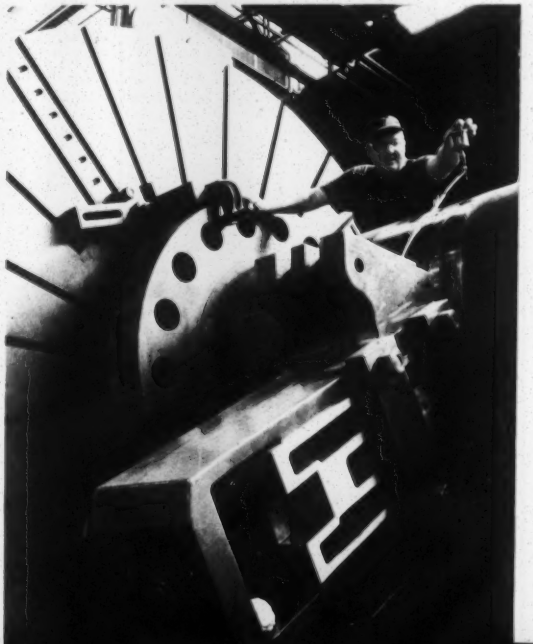
Today the lumber industry strives to put its operations on a sustained yield basis. Throughout the state dozens of planted forests are maturing. Hundreds of youngsters rally behind the program of Trees for Tomorrow, Inc. to plant acres of seedlings.

Although lumbering is no longer Wisconsin's chief industry, papermaking is still a leader.

Beneath the soil, too, Wisconsin is well endowed. More than 1.5 million tons of iron ore are mined each year, chiefly from the Gogebic Range. This is raw material for some of the state's heavy industry. Wisconsin provides the nation—and the world—with diesel engines, giant turbines and generators, gasoline engines, auto frames, pasteurizing machinery, tractors.

On one of the largest lathes in the United States (below) in the Allis-Chalmers plant in Milwaukee, a 27-foot, 95,000-pound main shaft for a turbine takes shape.

In Milwaukee alone, factory output runs more than $3 billion a year. Although Detroit is more often associated with the tech-



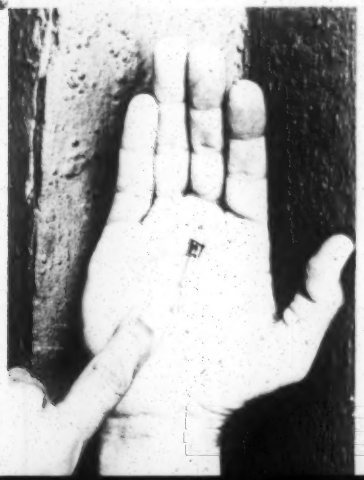
cember, 1787, in command of the three-masted ship *Bounty*. His orders: carry live breadfruit trees from Tahiti to Jamaica.

Bligh got his cargo loaded and sailed from Tahiti, but his men were so entranced with the beauty (and beauties) of the island that they mutinied.

Casting their commander adrift in an open boat (print at left) with a few loyal men, they headed back to Tahiti, where some were captured. Others sailed on to Pitcairn Island where their descendants still live. The breadfruit trees were thrown into the sea. In the print, two trees are shown lashed to the taffrail. Actually, they were carried inside the ship.

In the world's most celebrated open-boat voyage, Bligh fought starvation, thirst, pitiless sun, and the sea itself for 41 days, and accomplished the incredible feat of sailing 3,618 nautical miles across the Pacific to the Dutch settlement of Timor.

Back in England, he took command of the *Providence*, voyaged to Tahiti for more trees, and sailed once more for the New World.



After a difficult voyage, the *Providence* arrived at Port Royal, Jamaica, on February 2, 1793.

The local paper gave him an enthusiastic reception, and predicted: "The introduction of breadfruit into this island will constitute a remarkable era in its annals. In less than 20 years the chief article of sustenance will be entirely changed . . . the breadfruit, gaining firm hold by the toughness and strength of its root, will bid defiance to storms; and not being subject to change from vicissitude of season will afford in greatest abundance,

CHARLES ALLMON, NATIONAL GEOGRAPHIC STAFF

for nine months in the year, the choicest and most wholesome food."

There was one difficulty: when the plants matured the slaves found the starchy fruit tasteless, and would not eat it.

Today, however, breadfruit has become a common food all over the West Indies. The girl above gathers it in Martinique.

When Mr. Marden visited Jamaica last year, island authorities permitted him to take rootstock from a handsome old tree that was part of the original shipment. The roots were propagated by the Department of Agriculture.

The new *Bounty* has part of the old *Bounty* in her: a nail (left). It was hammered into her hull by Mr. Marden, who found it with other *Bounty* relics on the sea bottom off Pitcairn Island, where the mutineers scuttled her. F. S.

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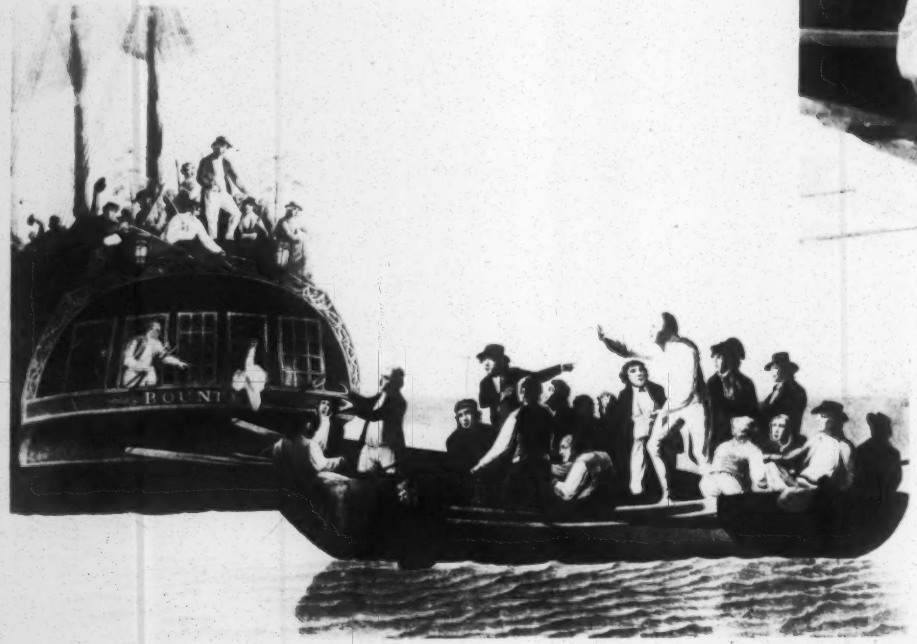
Capt. Bligh's Breadfruit Returns to Tahiti

CAPT. BLIGH'S BREADFRUIT has returned to Tahiti after a 173-year odyssey that includes murder, piracy, shipwreck, exile, and the most famous mutiny that ever took place.

Luis Marden of the National Geographic staff has planted in Tahiti a tree grown from the rootstock of one of the original breadfruits brought from that island to the West Indies by Bligh. Mr. Marden, at left above, shows his far-traveled tree to a fellow crewman.



VICTOR GARCIA

They stand before a reconstruction of Bligh's ship *Bounty* which carried Mr. Marden and the tree to Tahiti. The ship will be used in a refilming of the movie "Mutiny on the Bounty."

The *Bounty* saga began in an effort to introduce the breadfruit to the West Indies, where it would furnish cheap food for slaves on the plantations.

Captain William Bligh, one of the ablest of English navigators, cleared Spithead in De-

Death, old-age, hunger, sickness, accidents, anxieties—these sufferings afflict us all. The origin of them is greed. The third truth is recognition that suffering can be cured. The fourth is an eight-part definition of The Path by which one banishes suffering.

The eight rules are (1) right understanding—of the four truths; (2) right thoughts—free from greed, desire, hatred, revenge, cruelty; (3) right speech—never stooping to lies, harsh speech, gossip, or idle talk; (4) right action—performing only those deeds which do not cause suffering; (5) right livelihood—avoiding occupations which bring suffering, such as the trade in arms, flesh, intoxicants, drugs; (6) right effort—attempting always to lead a moral life; (7) right mindfulness—being never careless of thought, speech, or action; (8) right concentration—training the mind to meditate clearly and with purpose, not permitting it to wander from subject to subject.

Like the Hindu, the Buddhist believes his position in this life is the result of action in a past life. When a person fulfills the obligations of the eight rules, the causes of suffering no longer exist. He has reached a state of utter tranquility, Nirvana, and he need not be subjected to more rebirths.

Buddhists do not worship Gautama Buddha as a god, but as a principle of enlightenment. They believe there were many Buddhas before him and will be many after.

One becomes a Buddhist simply by practicing the actions of the eight-fold Path. The faith does not exclude the practice of other religions, and in China a man may be a Buddhist, Taoist, and Confucianist at the same time.

Because, in its ideal form, Buddhism requires a person to put aside the cares of daily life, it has become a religion of monks. In some countries, like Thailand, Burma, and Laos, nearly every male Buddhist spends at least a few weeks of his life in a monastery as part of his education. Below, Lao youngsters begging their meals like all Buddhist monks, accept food from kneeling women on a Nam Tha street. The boys will go back to their cells to eat and pray. Most return to the world, except in Tibet, where monks make up about one-third of the population.

Gautama first preached his faith at Benares, India. It spread through Asia and remains dominant in much of the Far East. Each country has stamped its own character on it. L.B.

JOHN M. KESHISHIAN

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W. ROBERT MOORE, NATIONAL GEOGRAPHIC STAFF

Great Religions of the World, No. 4

Buddhism

IN SERENE CONTEMPLATION, a 700-year-old bronze Buddha sits in Kamakura, Japan, symbolizing for more than 150,000,000 Asians the gentleness and rationality of their religious faith.

Across the East worshipers pause before such statues: Japanese, Indians, Thais, Burmese, Chinese, Koreans, Mongolians, Tibetans, Ceylonese, Laotians, Cambodians. They pay homage to the man who showed them The Path: Gautama Buddha, The Enlightened One.

Gautama was born in the sixth century B.C. in what is now Nepal. His father was an aristocratic Hindu chief. Gautama grew up in luxury. He had three palaces—one for winter, one for summer, and one for the rainy season.

But the life of a prince held little appeal for Gautama. He was troubled by the human suffering around him—sickness, poverty, old age, death. One night, when he was 29, he stole out of his palace, leaving his wife and child asleep. He shaved his head and put on the saffron robes of a holy man.

For six years he tried to learn the riddle of life and a solution to human suffering. In the spirit of Hindu asceticism he tried self-punishment, starving himself until he was little more than a skeleton. But he solved no puzzles, so he began to eat normally again. For 49 days he meditated until he understood life's secrets. He became the Buddha, the Enlightened One. For 45 years, until his death in about 483 B.C., he preached through northern India, making converts to his new faith.

This is what he taught and what lives on as Buddhism: He had found neither self-indulgence nor asceticism of any use. He urged his followers to choose the Middle Way, the path of moderation, avoiding extremes.

This Middle Way rests on four truths: the universality of suffering, the origin of suffering, the cure of suffering, and The Way, which leads to the end of suffering.

Forested mountains make up two-thirds of the country. Two large plateaus, the Bolovens in the south and Tran Ninh in the north, together with the valley of the Mekong, provide almost its only level areas.

The Lao people make up only about half the population—estimated between 1.5 and 3 million. They probably first migrated into their present nation from Yunnan in China between the 11th and 13th centuries.

They pushed primitive tribes back into the forests and mountains. They called these natives Kha, meaning slave or barbarian. Other tribesmen—the Ho, the Black, Red, and White Thai, the Lu, Akha, Yao, and Meo—migrated to Laos from southern China later.

Each group lives isolated from the others. The rice fields of the Lao, dotted with bamboo villages, lie in the river valleys. The various tribespeople live in the hills and mountains.

Lao dominate the country. They make up the royal family and government officials.

Most of them follow the path of the Buddha, liberally sprinkled with animism. Practically all Lao men spend some time as monks, often during childhood and again for a week or so before marriage—a custom designed to make them good husbands. But the Lao also worship the spirits of the earth, sky, and water. They put rice offerings to the gods of family and home in birdhouse-like shrines in their gardens.

HANNAH HERZ

Most Lao are rice farmers, planting their crop after the first rains in May or June, transplanting the green shoots in monsoon-flooded fields a month later, harvesting after the monsoon ends in October.

In recent years the government has worked to step up farm production. Experiments find higher-yielding seeds which are passed on to the farmer. The government also tests fields of corn, sorghum, vegetables, and orchards of limes, tangerines, mangoes, and apples so that crops can be diversified. Tea, coffee, and rubber plantations are being restored. Small dams water more crop land.

UMI

LAOS Asian Nation in War's Path

PROGRESS SWEEPING the world in the 20th century gave the sleepy little Southeast Asian Kingdom of Laos the once-over-lightly, but the scourges of mankind—poverty, disease, and now war again—seem to have settled down to stay.

Laos—rhymes with how—is a land of bamboo huts, Buddhist temples, and people scratching a bare living from hillsides. Human and animal muscles do the work that machines do elsewhere. Below, elephants plod into the stilt-house village of Sayaboury after a day of hauling timber in the forest. Elephant caravans and oxcarts transport goods over roads muddied by monsoon rains, for Laos has no railroads and few highways and trucks. At right a mud-spattered farmer slogs through his rice field, his rude plow powered by a water buffalo.

DOMINIQUE DARBOIS

Vientiane, the economic and administrative capital (Luang Prabang is the royal and religious capital), holds more than 60,000 people, but has no water system, sewers, or garbage collections. Pedicabs and bicycles clutter the streets, making traffic tangles for the few jeeps and automobiles. A plane may have to circle for 20 minutes over the airport while wandering water buffalo are herded off the landing strip.

Once this city was the strong capital of a rich and powerful kingdom, called Muong Lan Xang Hom Khao—Land of the Million Elephants and the White Parasol. This kingdom between the 14th and 18th centuries included much of northern Thailand as well as Laos. Then the kingdom split, and part of it was ruled by Thailand. Later the French made it a protectorate and half a century of French rule followed, ending in 1953.

Japanese and Chinese occupation during World War II and Communist invasions in 1953-54 devastated Laos. It has had no chance to recover.

Pushing down in Southeast Asia from the border of Communist China to Cambodia, Laos is about 650 miles long and from 55 to 300 miles wide, covering an area of some 91,000 square miles—a little bigger than Utah.

JOHN M. KESHISHIAN

DOMINIQUE DARBOIS

Meo women wear their bankrolls. The woman at right, who lives on the Tran Ninh Plateau, bedecks herself in necklaces made from silver bars—profits from the sale of opium. Below, Meo women harvest the drug from the poppy heads. Opium sales are legal in Laos.

Rivers provide fish—the protein in the Lao diet. After the rains, the flooded rice fields come alive with small fish which women and children scoop up with baskets and nets.

Into these peaceful scenes war has intruded. Above, Lao troops slosh through the village of Nam Tha, returning from a patrol.

Situated as it is, Laos has been a buffer state between its free neighbors—South Viet Nam, Thailand, Cambodia, Burma—and the menace of Red China and North Viet Nam.

The 1954 Geneva Treaty, which stopped open warfare in Indochina, sent all foreign troops out of Viet Nam, Laos, Cambodia. Viet Nam was divided into North and South.

For Laos it has been an uneasy peace. Internal conflicts between the Communist-led Pathet Lao faction and the government have erupted periodically. Now a civil war between the Communist group, supported by China and Russia, and the government, supported by the United States, sweeps over the country, widening the path of tragedy which seems to have become a part of Laos. L. B.

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